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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,667

09/19/2005

Yukihiro Shigemura

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EXAMINER

GUGLIOTTA, NICOLE T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,667	Applicant(s) SHIGEMURA, YUKIHIRO	
	Examiner NICOLE T. GUGLIOTTA	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 20 is/are pending in the application.
- 4a) Of the above claim(s) 5, 10 - 12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 4, 6 - 9, 13 - 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/12/2008, 10/11/2005, 9/19/2005</u> . | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I (claims 1 – 4, 6 – 9, and 13 – 20) in the reply filed on 11/28/2008 is acknowledged. The traversal is on the ground(s) that the article can be made by a materially different method than that claimed by applicant. Applicant cites MPEP 1850 that a "restriction of process claim for making a product is improper if the process is 'specially adapted' for the manufacture of said product". However, Examiner argues that MPEP 1850 (same paragraph as applicant's above reference) also states "The words 'specially adapted' are not intended to imply that the product could not also be manufactured by a different process". Therefore, a restriction may also be proper if the article can be made a materially different process. Applicant has failed to persuade the Examiner that the article cannot be made by a materially different method.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The abstract of the disclosure is objected to because the abstract in an application filed under 35 U.S.C. 111 may not exceed 150 words in length (See MPEP 608.01(b) [R-3]. Examiner counted 171 words.

Claim Rejections - 35 USC § 103

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4, 6, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamiko et al. (JP 2001003233 A, Abstract submitted by applicant, English machine translation provided by Examiner), in view of Yukihiro (JP 2001-073238, Abstract submitted by applicant, English machine translation provided by Examiner).

5. In regard to claim 1, 3, 4, 6, and 14, Tamiko et al. disclose a polyester false-twisted yarn (corresponds to applicant's "polyester composite thick-and-thin multifilament yarn" in preamble of claim 1), which comprises a thick-thin polyester yarn having irregular thickness in the longitudinal direction of the yarn (corresponds to applicant's "polyester individual thick-and-thin filaments" (A)), as well as a polyester drawn yarn (corresponds to applicant's "polyester multifilament yarn" (B)). The fabric produced is knit (Section [0018]).

6. The sheath-core two layer structure, the crimp part (Examiner interprets "crimp part" to mean thin part of thick-and-thin yarn) is intermingled with full oriented yarn (Examiner interprets "full oriented yarn" to mean the polyester drawn yarn and further interprets "intermingled" to correspond to applicant's limitation of a "random mixture with each other") (Abstract, Section [0005]).

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7. “The thick part of the coarse/fine thread have coiled around this full oriented yarn at the line-of-thread longitudinal direction” (Section [0005]). Examiner interprets the coiling of the coarse/fine thread around the full oriented yarn of Tamiko et al. to correspond to applicant’s limitation of yarn (B) in the center as the core and yarn (A) around the core (core-in-sheath configuration).
8. Tamiko et al. disclose the polyester drawing yarn and the coarse/fine thread differ in dye affinity (Section [0006]), but not necessarily that the drawing yarn has a higher dyeability.
9. Yukihiro et al. disclose a multicolored dyeable yarn comprising a thick-and-thin yarn and a filament yarn having a dyeability deeper than that of the thick-and-thin yarn (Abstract and Section [0004]).
10. It would have been obvious to one of ordinary skill in the art at the time of the invention to have a thick-and-thin yarn and filament yarn having a deeper dyeability than that of the thick-and-thin yarn in order to produce a more natural appearance.
11. In regard to claim 3, Yukihiro et al. disclose a yarn-length difference $(L_s - L_c)/L_c \times 100$ of less than 15% and not less than 5% (Section [0015]).
12. In regard to claim 4, Tamiko et al. disclose the yarn was dyed using a cationic dye (Section [0032]). Yukihiro et al. also disclose the use of cationic dyes (Section [0010]).
13. In regard to claims 6 and 14, Tamiko et al. disclose the yarn to be considered as a knit fabric (Section [0009]).

14. Claims 2, 8, 13, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamiko et al. and Yukihiro et al., in view of Tadayoshi et al. (JP 10-0961322 A, Abstract supplied by applicant. English machine translation provided by Examiner).

15. In regard to claim 2, Tamiko et al. and Tadayoshi et al. are silent in regard to the ratio of the total length of composite thick portions in (A) to the length of (A).

16. Tadayoshi et al. disclose a thick and thin yarn comprising a ratio of the thick part is 10 – 50% and that when the length ratio of a thick part does not satisfy this range the appearance of a textile may become insufficient and lose commodity value (Section [0012]).

17. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply a thick portion length ratio of between 10 and 50% to the thick and thin (coarse/fine) filament the invention of Tamiko et al. in order to preserve the good appearance and value of the textiles made with the fiber, as disclosed by Tadayoshi et al. Applicant's range and that of Tadayoshi et al. overlap in the range of 40 – 50% length ratio. It is well established, however, that the subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549.

18. In regard to claims 8 and 19, Tamiko et al., Yukihiro et al. and Tadayoshi et al. are silent in regard to mass-reduction treatment with an alkali to form cracks in the yarn.

19. Tamiko et al. disclose alkali weight loss treatment of a knit fabric causing hole vacancies (corresponds to applicant's "cracks") (Section [0018]).

20. In regard to claim 13, Tamiko et al. disclose the yarn to be considered as a knit fabric (Section [0009]).

21. Claims 7, 9, 16 – 18, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamiko et al., Yukihiro et al. and Tadayoshi et al. as applied to claims 2 - 4 and 6 above, and further in view of Miyasaka (WO/2003/093547, for the purpose of examination US 2004/0175532 A1 is being used as the English language equivalent).

22. In regard to claim 7, 9, 16, 18, and 20, Tamiko et al., Yukihiro et al. and Tadayoshi et al. are silent in regard to the width ratio of the thin-and-thick yarn.

23. Miyasaka discloses a polyester filament thick-fine yarn fabric with a thick-and-thin ratio of 1.05 or more.

When the thick-and-thin ratio...is less than 1.05, the resulting thick-and-thin yarn fabric cannot exhibit a hand and appearance analogous to those of the natural fiber spun yarn fabric (Sections [0036] - [0038]).

24. It would have been obvious to one of ordinary skill in the art at the time of the invention to desire the appearance of natural fiber spun yarn fabric, and therefore apply

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the thick-and-thin ratio (corresponds to applicant's "width ratio, W_1/W_2 "), disclosed by Miyasaka, to the thick-and-thin yarn of Tadayoshi et al.

25. In regard to claims 9 and 20, Tamiko et al., Yukihiro et al. and Tadayoshi et al. are silent in regard to cracks in the fibers.

26. Miyasaka discloses a polyester filament thick-fine yarn fabric with a crack perpendicular the longitudinal axis of the yarn, in the thick portion:

The depth-wise direction of the crack is preferably formed in a direction intersecting substantially at right angles the filament axis direction of the filament. However, the crack formation direction need not be exactly in the orthogonal direction... The cracks are formed at both thick and thin portions of the individual thick-and-thin conjugate filaments. However, a crack distribution is likely to be such that the distribution is high at the thick portions and low at the thin portions (Section [0040] – [0041]). A plurality of cracks formed on the peripheral surface of the individual polyester conjugate filaments contained in the thick-and-thin filament yarn of the invention makes the hand of the thick-and-thin multifilament yarn, and the hand of the fabric containing such a filament yarn, soft, and scatters and absorbs light on the peripheral surface in the same way as the scales of a wool fiber (Section [0074]).

27. It would have been obvious to one of ordinary skill in the art at the time of the invention to form cracks in the thick portion of the yarn, as opposed to the thin portion of the yarn, in order to maintain mechanical strength as much as possible. It is also would have been obvious to one of ordinary skill in the art at the time of the invention to form the cracks in a thick-and-thin multifilament yarn in order to produce a soft fabric which scatters and absorbs light similar to wool fiber.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE T. GUGLIOTTA whose telephone number is

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(571)270-1552. The examiner can normally be reached on M - Th 8:30 - 6 p.m., & every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NICOLE T. GUGLIOTTA
Examiner
Art Unit 1794

/Jennifer McNeil/
Supervisory Patent Examiner, Art Unit 1794